

# MALE GENITAL ORGANS

**Internal genital organs** - gonads (testes) – spermatozoa and sex hormone testosterone  
genital tract (epididymis, ductus deferens, urethra masculina)  
glands (vesiculæ seminales, prostata)

**External genital organs** - penis, scrotum

## Testis

Facies medialis et lateralis

Extremitas superior et inferior

Margo anterior et posterior

Tunica vaginalis - lamina visceralis et parietalis

Tunica albuginea

Mediastinum testis

Septula testis

Lobuli testis - tubuli seminiferi contorti

Tubuli seminiferi recti - rete testis

Leydig's interstitial cells

Hilum testis

Ductuli efferentes testis

A. testicularis

Plexus pampiniformis - v. testicularis

Nodi lymphatici lumbales

Sympathetic nerves - abdominal plexuses

Parasympathetic nerves - n. vagus

Sensory fibers - Th10

## Epididymis

Caput epididymidis

Corpus epididymidis

Cauda epididymidis

Sinus epididymidis - lig. epididymidis superius et inferius

Lobuli epididymidis

Ductus epididymidis

A. testicularis

Plexus pampiniformis

Nodi lymph. lumbales, iliaci int. and inguinales spf.

Nerves - autonomic plexus testicularis and sensory fibers end in the segments Th11-12.

Appendix testis (the remnant of the Müller's duct)

Appendix epididymidis (the remnant of the Wolff's duct)

Ductuli aberrantes (the remnant of the mesonefros)

## Descent of the testes (descensus testium)

Gubernaculum (lig. scrotale)

Processus vaginalis (lig. vaginale)

Retentio testis (cryptorchidism)

Ectopia testis

## **Ductus deferens**

1. pars epididymica
2. pars funicularis
3. pars inguinalis
4. pars pelvina

ampulla ductus deferentis - diverticula ampullae ductus deferentis.

Ductus deferens + ductus excretorius = ductus ejaculatorius

A. ductus deferentis, plexus pampiniformis and plexus vesicalis, nn. lymph. iliaci int. et ext., sympathetic nerves from nn. splanchnici lumbales.

## **The spermatic cord (funiculus spermaticus)**

ductus deferens, a. testicularis, a. ductus deferentis, venous plexus pampiniformis, nervous plexus testicularis et deferentialis, lymph vessels

## **Coverings of the testes, epididymides and the spermatic cords**

Epidiorchium (lamina visceralis tunicae vaginalis) - a derivative of the visceral peritoneum

Periorchium (lamina parietalis tunicae vaginalis) - a derivative of the parietal peritoneum

Cavum serosum scroti

Fascia spermatica interna - a derivative of the fascia transversalis

M. cremaster together with the connective tissue forms fascia cremasterica

Fascia spermatica externa - a derivative of the fascia abdominis spf.

## **Seminal vesicles (vesiculae seminales)**

Ductus excretorius

Thick alkaline secretion - source of energy for sperms

A. ductus deferentis, a. rectalis media, a. vesicalis inf.

Venous plexus prostaticus et vesicalis. Nn. lymph. iliaci int. Nervous plexus hypogastricus inf.

## **The prostate (prostata)**

Basis prostatae

Apex prostatae

Facies anterior - ligg. puboprostatica and m. puboprostaticus

Facies posterior

Facies inferolaterales

Lobus dexter

Lobus sinister

Lobus medius

Isthmus prostatae (lobus anterior)

Capsula propria

Plexus venosus prostaticus

Fascia periprostatica

30- 50 tubuloalveolar glands

Ductuli prostatici (prostatic sinuses)

Weakly acidic secretion important for the activity of sperms

A.rectalis media, a.vesicalis inf., a.pudenda int.

Plexus venosus prostaticus – plexus venosus vesicalis – v.iliaca int.

Nn. lymph. iliaci int. et ext., nn. lymph sacrales.

Plexus hypogastricus inf. - parasympathetic fibers from the sacral parasympathetic system, sympathetic fibers - from lumbar segments.

### **Glandulae bulbourethrales**

mucus-like alkaline secretion

Ductus glandulae bulbourethralis.

### **Male urethra (urethra masculina)**

Ostium urethrae internum

Ostium urethrae externum – the narrowest part of the urethra.

4 parts:

1. pars intramuralis –surrounded by the smooth m.sphincter vesicae.
2. pars prostatica –crista urethralis, colliculus seminalis, 8 mm long blind utriculus prostaticus (a remnant of the Müller's duct), ductus ejaculatorii, sinus prostatici (ductuli prostatici).
3. pars membranacea – through the diaphragma urogenitale (m.sphincter urethrae).
4. pars spongiosa – ampulla urethrae (intraulbar fossa) - glandulae bulbourethrales, fossa navicularis - valvula fossae navicularis, glandulae urethrales - lacunae urethrales.

Curvatura subpubica – between pars membranacea and pars spongiosa

Curvatura praepubica

Urethra fixa (posterior)

Urethra mobilis (anterior)

A.vesicalis inf., a.rectalis media, aa.pudendae int. Veins accompany arteries.

Nn.lymph.inguinales spf. from pars spongiosa, nn.lymph.iliaci int. from other parts.

Sympathetic plexus prostaticus and rectalis, parasympathetic fibers – from the sacral parasymp. (nn.splanchnici pelvici). M. sphincter urethrae is innervated from n. pudendus.

### **Penis**

Radix penis

Corpus penis

Glans penis

Corona glandis

Collum glandis

Dorsum penis

Facies urethralis - raphe penis

Foreskin (praeputium)- ostium praeputii, gll. praeputiales - smegma praeputii, frenulum praeputii

Corpora cavernosa - crura penis (crista phallica), septum penis

Corpus spongiosum - bulbus penis, urethra

Tunica albuginea - trabeculae corporum cavernosum - cavernae - aa. helicinae, vv. cavernosae

Fascia penis profunda - v.dorsalis penis profunda, aa. and nn. dorsales penis

Fascia penis superficialis - vv. dorsales penis superficiales

Lig. fundiforme penis, lig. suspensorium penis

A. pudenda int., v. dorsalis penis spf. drains into vv. pudendae externae. V. dorsalis penis prof., vv. profundae penis - v. pudenda int.

Nn. lymph. inguinales spf., nn. lymph. iliaci ext.

Sensory fibers (the glans penis is the most sensitive part of the body) are branches of the n. pudendus.

### **Ejaculation of the semen**

Emission of sperms and genital glands secretion into the prostatic portion of the urethra

Expulsion of the semen from the spongy urethra (ejaculation)

### **Scrotum**

Raphe scroti

Pubes

Tunica dartos scroti - termoregulation

Septum scroti

Cavum scroti

A. pudenda ext., a. pudenda int., v. femoralis, v. pudenda int., nn. lymph. ing. spf.,

Sensory - n. genitofemoralis, ilioinguinalis, pudendus, cutaneus femoris post.

M. cremaster – n. genitofemoralis. Tunica dartos – plexus hypogastricus inf.